FTD-HT-23-871-70

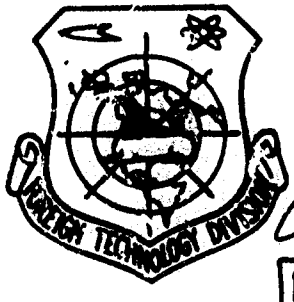
FOREIGN TECHNOLOGY DIVISION

WITHOUT EVER LEAVING HIS OFFICE

Secrets of the Intelligence Services

by

F. Sergeyev



FTD-HT-23-871-70

EDITED TRANSLATION

WITHOUT EVER LEAVING HIS OFFICE
Secrets of the Intelligence Services

By: F. Sergeyev

English pages: 27

Source: Nedelya (This Week), No. 46, 1970, pp. 14-15; No. 47, 1970, pp. 17-23.

UR/9030-70-000-046&047

PREPARED BY:

TRANSLATION DIVISION
FOREIGN TECHNOLOGY DIVISION
WP-AFB, OHIO.

WITHOUT EVER LEAVING HIS OFFICE

Secrets of the Intelligence Services

F. Sergeyev, Candidate of Economic Sciences

Just as they did a hundred and even a thousand years ago, the "knights of the cloak and dagger" continue to operate in all corners of the world, supplying their agencies with espionage reports, and as the requirements of the intelligence services for secret information have increased, so too have the scale and extent of this kind of spying. The passage of time, however, has modified both the purposes of espionage and the scope of its activity - and thus also the techniques and methods whereby information is acquired. This is particularly true of the management of data analysis and assessment.

During the second half of the twentieth century, during the age of the science and technology revolution, the time-honored "shot-in-the-dark" approach to intelligence work rarely bears fruit. "Mysterious pursuits," "struggles on the platforms of speeding express trains," "seductions of carriers of state secrets by alluring women," "message drops in out-of-the-way places," and the like - all in the best detective-story and movie-thriller style - may still of course actually take place, as needed, in the clandestine war even in this space and nuclear-missile age. But what might be referred to as the "specific weight" of operations of this type in, say, the overall activity balance of the US Central Intelligence Agency, has plummeted downward. And this by no means because the directors of

US intelligence are reluctant to soil their hands with dirty business - quite the contrary. It is, in fact, common knowledge that US intelligence operations are distinguished precisely by aggressiveness, brutality, and little concern for the niceties. The fact is, however, that through the use merely of the old, traditional techniques of espionage one cannot possibly unravel as intricate a problem as the determination of another country's military-economic potential - and that is precisely the name of the game in one of the most essential areas of intelligence operations today

As the problems, so the methods.

The intelligence agency of today is primarily a vast scientific research apparatus or establishment relying not only and, indeed, not as much on secret, conspiratorial methods as on modern capabilities in the collection, analysis, and systematizing of acquired data. In the technically advanced intelligence agencies of the imperialist states* personnel rosters include large numbers of scientists whose task it is to classify, analyze, and assess an enormous flood of raw data - without ever setting foot outside their country or, often, their own office. And this entire mass of information reaches them not from the reports of some secret agents or other, but from sources which are absolutely accessible to anyone and everyone and which in the intelligence field are known as "overt" sources. These are the same sources without which no civilized state can function in the age of the scientific and technical revolution and the "information explosion": newspapers and magazines, radio, television, national and international exhibits, library exchange programs, international scientific and cultural exchange programs, and the like. This "information explosion" has also been tapped by the intelligence community for its own particular ends.

*In Russian political jargon the imperialist states are the US, United Kingdom, West Germany, France, and, occasionally, Portugal - Translator's Note.

And it didn't begin today.

A Little Background

Even in former times, to determine the military capabilities of their opponents intelligence agencies have availed themselves of open sources. A classical example illustrating how, as Allen Dulles put it, intelligence can be waged "without even leaving your office," might be the case of Berthold Jakob.

A German journalist and military-affairs expert, Jakob emigrated to England and in the early thirties wrote a good deal about Hitler's army, the rearmament of which had just begun. In London he published a book which discussed in detail the organization of the Fascist war machine, described its high-echelon military leadership, and biographed its leading general-staffers and no less than 169 generals. Hitler ordered his intelligence adviser, Col. Walter Nikolai, to discover from what sources the author had derived this valuable information and to discover the names of his accomplices.

Wesemann, a German secret operative, was given the task of trapping Jakob. Wesemann, passing himself off as an emigré from fascist Germany to Switzerland and a publisher, opened a bookshop in the city of Basel, not far from the German border. He then contacted Jakob, inviting him to visit Switzerland ostensibly to discuss publication-related business. The latter accepted the invitation and arrived in Basel. During a luncheon, Wesemann, taking advantage of a brief absence of Jakob, dropped a sleeping pill in his wine glass. The unsuspecting journalist quaffed the wine and immediately fell asleep. Wesemann requested the waiter to help transport his "intoxicated" friend to a waiting car. Jakob woke to find himself in Germany.

He was taken straight away to Gestapo Headquarters and brought to an office where he was confronted by Nikolai.

"Everything published in my book," Jakob maintained, "was taken from newspapers. The basis for the assertion that Major General Haase is in command of the 17th Division stationed near Nurenberg, I obtained from an obituary in a local newspaper. It reported that Gen. Haase, Commandant of the 17th Division, attended the funeral." Jakob continued: "In a paper published at Ulm, among the society items I found a piece on the wedding of the daughter of Col. Wirow to a certain Maj. Stemmermann. The item mentioned that Wirow is in command of the 306th Regiment of the 25th Division. Stemmermann had been posted as liaison officer to that division. Attending the wedding was a certain Maj. Gen. Shaller, referred to as the commanding officer of that division. The paper reported that he had arrived from Stuttgardt, where his division was quartered..."

For all practical purposes this ended the interrogation. Nikolai reported to Hitler that Jakob had obtained all his information on the Wehrmacht from German newspapers.

Meanwhile, a diplomatic incident had arisen over Jakob's kidnapping. The Swiss were demanding his release. The German Minister of Foreign Affairs, initiating a search for Jakob, located him in a Gestapo jail. Several months later, Jakob did in fact return to Switzerland, where he had the opportunity to tell of his abduction.

Hitler's intelligence also made extensive use of legal opportunities, particularly the enemy's press coverage. In operation in Germany during World War Two were 380 information and scientific research institutes. Many of these establishments (for instance, the "Russian Institute" in Wannsee) were geared to determine the military-economic potential of possible future opponents through meticulous analysis of their overt publications. A large portion of the information of the First Department of the Abwehr, under the direction of Col. Hans Pickenbrock, was based on "the ability to read between the lines of Soviet printed publications, on the debriefing of returning travelers, and on methods of office intelligence." Japanese intelligence agencies employed similar methods.

For its part, the United States extensively copied German and Japanese techniques with overt sources. During the Second World War, US intelligence obtained a sizeable share of its information on the enemy directly from the German, Italian, and Japanese press. Allied intelligence agencies set up special agencies in Europe and Asia which bought up newspapers and scientific journals or subscribed to them through neutral countries, with transshipment by air to Washington, New York, and London.

General William Donovan, Chief of US Strategic Intelligence [OSS], once said, shortly after the war, that the Americans were able to determine Wehrmacht personnel casualties by analyzing the lists of fallen officers published in German provincial papers. "It is well known," said Donovan, "that in all armies there is a proportion or ratio between the number of enlisted men and officers, and, consequently, between the casualties in both categories. On this basis, our research-analyst specialists were able to compute the numerical strength of the German Army in 1943." According to Donovan, these estimates were confirmed after the cessation of hostilities.

Even before the war the Americans had begun their study of the military-economic potential in Japan. It was naturally easy for American specialists to perceive that agricultural production constitutes one of the most vulnerable aspects of that country's economy, since it was permanently based on the use of artificial fertilizers. It was for this reason that the two small islands of Nauru and Oksan, on which were stored enormous supplies of phosphates, were included on the strategic targeting lists.

In 1942, an economist at the University of Pennsylvania, Dr. Robert Strauss-Hupe, called attention to the fact that, prior to the war, Japan had imported the major portion of her fertilizers from French possessions in North Africa. However, by 1942 US troops were already present there. Japan, however, as Strauss-Hupe was able to determine from sources published in Japan itself, was not experiencing any shortage of fertilizer. The question, then,

naturally arose: how were the losses being recouped? Strauss-Hupe suggested that the fertilizer was being brought in from the island of Nauru, which was especially rich in alkaline guano (bird manure) and phosphates. Aerial reconnaissance confirmed the suggestion. Photographs showed that new production facilities has been built on the island and that there was an unusual number of transport vessels awaiting loading at the docks. The island was subjected to massive bombing. A short time later, information began to come in regarding the gradual exhaustion of fertilizer supplies in Japan and, as an aftermath, an impending food crisis.

That's history, but we're more interested in the present day.

*

The Role of Overt Sources Today

Work with overt information sources became most intense in the US during the postwar period. Such recognized American intelligence authorities as A. Dulles, S. Kent, L. Farago, W. McGovern and numerous others have devoted special studies to the justification of the importance of this branch of intelligence – and of the enormous expenditures it entails.

In the United States, American writers tell us, the study of open sources of foreign states has been so organized as "to overlook nothing that is available and potentially useful." Under today's conditions, this study has taken on the form of an important, scientifically geared area of intelligence activity employing enormous numbers of military and civilian specialists. When conducted by highly professional specialists, work with unclassified material frequently provides a basis for important, far-reaching (beyond the scope of the text itself) conclusions on the other side's strategic capabilities and on the weaknesses in his military-economic posture. The constant involvement of new production and nonproduction enterprises in the servicing of military requirements, along with the increasing structural complexity of the overall concept of military-economic potential, has meant expanded opportunities for the assessment of that potential, and its individual components, from indirect data.

Somewhat curious in this respect is the statement of the American political observer G. Ransom. Emphasizing that the United States does not rely entirely on clandestine operations, but draws on overt information regarding the scientific and engineering achievements of the USSR, he cites as a substantiating example the following specific case. "A press story on the laying of a railroad in a deserted area may provide an intelligence impetus for the collection of data on that area and for a determination as to whether, at the terminal of that rail line, there might not be an airstrip, a steel plant, or a uranium mine." Such facts, concludes Ransom, extracted from open sources, "may be no less important to our military and foreign-policy planning than the fly-by of a new model of the 'Bison' aircraft (long-range bomber) during a Moscow parade."

The scientific techniques presently used in the intelligence field for the collation and summarizing of fragmentary and disjointed raw data from open-literature sources, along with modern technical facilities for the storage and processing of the material, ensure the rapid systematization and digesting of a vast mass of collected information. Following this, it is not particularly difficult to convert it into an effective basis for military-economic projections and strategic decision making. Moreover, the processing and analysis of this kind of information has opened up colossal possibilities for the borrowing of foreign ideas for the development of one's own science, technology, and production, as well as possibilities in terms of timely analysis of the economic situation in the interests of exploiting new markets.

W. McGovern writes: "It is extremely difficult to compute mathematically, but I am inclined to believe that in the process of preparing strategic decisions approximately 20 percent of the basic information is obtained through secret sources, with about 80 percent from overt, legal sources." L. Farago asserts that 90 percent of the information take can be derived from open sources.

While there may be some argument on the percentages, the essence of the matter remains unchanged. Of course, it would be naive to

interpret these ratios as an indication of some cutback in classified intelligence operations. That "twenty percent," for example, attributed by US writers to secret, classifi d sources, is qualitatively and quantitatively an altogether different thing than in the past. In the first place, it is twenty percent of the literally millions of facts which are today absorbed and digested by an incredibly proliferated intelligence machine – and this must mean, consequently, a step-up also in the volume of clandestine operations. In the second place, given the present state of the intelligence art, this same "twenty percent" is no longer the groping, uncertain work in the dark that it once was, but a rigorously directed activity, constantly corrected on the basis of the most advanced technology, scientific research, and data-flow analysis, meaning therefore an incomparable qualitative improvement in classified intelligence efforts. The ultimate result, therefore, is that these clandestine activities are more strictly and more precisely oriented, with major attention centered on certain key areas determined in accordance with the development of the enemy's military-economic potential.

At the same time, however, the intelligence services of the imperialist states are forced also to contend with the present-day evolution of international relations, with the postures of the opposing forces in the world arena. It is no longer quite so simple to illegally introduce one's "own" man into an alien world and it is not quite so simple to recruit secret agents in that world. There are also certain standards of international law to be considered and the danger of incidents and complications between governments to be feared – all the more since the energetic counterintelligence activities of the forces opposing the imperialists increase considerably the risk of failure. Why then run any risk at all in areas where the necessary information can be had without jeopardy and, what is more, with even greater speed!

We repeat: the division of tasks within the intelligence field in no way signifies any desire for clean skirts on the part of the people responsible for its conduct. If anything, just the opposite –

secret operations are invoked for the more serious and more crucial jobs beyond the capabilities of the spy satellite, the high-flying reconnaissance aircraft, or the high-speed-computer information center.

What are they after? What is the mission of US intelligence in its collection of overt, unclassified material?

Analysis of American literature on the subject would seem to indicate three basic directions in the exploitation of open-source intelligence information. Of these, clearly the most essential is the collection of *general political, economic,* and *military information* vital to assessments of the military-economic and morale-political potential of the countries under intelligence surveillance. The importance of this effort derives from the fact that it is precisely this general information which underlies the *fundamental strategic orientation* of interested government agencies, both military and civilian. In its approach to this task, US intelligence collects the entire range of data that might be needed to wage economic, political, diplomatic, and propaganda warfare.

The second direction has to do with the acquisition of *special intelligence information* relating to specific areas of economics, science and engineering, military doctrine. This information is generally earmarked for a more restricted group of specialists and serves as a data-base for the elaboration of *strategic planning.*

Finally, there is a third area in which open sources play a substantial role. This the *biographical* area, the collection of information on individuals. US intelligence is interested not only in outstanding statesmen, politicians, public and military figures, and prominent scientists, but also, as we shall see later on, in less distinguished personalities, either already active in specified sectors of the economy, production, science, politics, armed forces, or members of the younger generation thought to be particularly promising.

The source material for this entire range of information is generally-available printed documentation, beginning with official reports and ending with reference publications of every conceivable kind. For the intelligence specialist working on a specific problem even this information may serve as a basis for important extrapolations. In one publicized official document of the US Army Intelligence Agency the statement was made that, with material of this type available, "each side can draw conclusions regarding the other side's intentions and will know how to act." Based on this general information, "guideline systems" are compiled -- a set of data permitting the formulation of hypotheses on events in the future and the prediction of the policy lines to be followed by particular states.

In the exploitation of overt sources, each of these sources is given maximum attention, since valuable information may appear in an entirely unexpected context or may emerge from collation. In this way, the intelligence view field embraces the big-city and provincial press, radio, television, specialized unclassified military publications, journals and reference publications in the area of science and engineering which may not be distributed abroad but are readily available within a given country, as well as all other printed materials not of an entirely restricted nature.

American intelligence naturally focuses its most detailed attention on scientific works from the socialist countries in the areas of atomic energy, nuclear physics, cosmic radiation, chemistry, biology, rocketry, rocket fuel advances, electronics, remote-control mechanics, automation, and other key disciplines of modern science and technology. As a result of the processing and analysis of open-source literature, intelligence is able to collect information relating to the state of the art in science, engineering, industry, and the armed establishment, as well as with respect to other vital factors bearing on the defensive capabilities of the socialist nations. For the trained specialist, often the simple mention of an intelligence-sensitive item is enough to provide a foundation for far-reaching deductions.

Given the present vast range of economic, scientific-technical, and military information, it is altogether natural that articles on various aspects of these disciplines should find their way into public print; indeed, it could hardly be otherwise. While these articles will probably not contain any classified information, still the meticulous, systematic study of the entire aggregate of published data, together with analysis, summarization, and assessment, can provide the careful intelligence specialist with a fairly accurate picture of the status and trends in a specific area of science or economics.

In the middle fifties, for example (as we can judge by American publications), by "day-to-day screening" and analysis of data from unclassified Soviet foreign trade publications dealing with aluminum US intelligence attempted to determine the timetable for the Soviet Union's transition to an extensive missile-construction program and cutback in military aircraft. In the sixties, through its study of the technical literature of the socialist countries, the Scientific and Technical Intelligence Center of the US Air Force persistently sought the answer to the question as to the kind of high-stress-resistant metal these countries intended to use for gamma-ray protection of the cockpits of their military aircraft. During these same years, the very fact of the proliferation of publications dealing with zero-visibility intercept fighter training exercises led US intelligence to conclude that a construction program for aircraft of this type was underway in socialist countries. In another case, one American agent legally stationed in Moscow was given the assignment of reporting on the magnitude of the oil yield at Baku and Groznyy. For more than a year, that agent made a daily study of the entire local and central press and of all publications dealing with these petroleum industry locations. In the middle sixties, through analysis of the Soviet (and principally the Moscow) periodical press, US intelligence endeavored to obtain information on Soviet R&D work with fungicides – special preparations added to aviation or rocket fuel for the purpose of destroying the bacteria which can foul instruments and corrode containers. At about the same period, Western intelligence agencies were particularly intrigued by

centrally published military – and especially local – Soviet press reports dealing with our modern civilian-defense system; for two years, prominent American specialists scrupulously studied everything we published on this subject.

The great interest certain diplomats of the capitalist countries show in the reading rooms of the public libraries of Moscow and Leningrad is also no mere personal quirk. On this subject Farago writes: "Often a visit to the reading rooms of the public libraries will provide an intelligence officer with more than the files of the general staff."

Not infrequently, primitive camouflage may be used to gain access to specialized literature. One foreign diplomat, at great pains to pass himself off as a physicist, amazed the employees of a library by his variegated interests and ability, in a single sitting, to digest masses of special publications. In a single day's time he requested the following titles: "Use of Electrovacuum and Semiconductor Instruments," "Technical Information on Capital Construction," and "Selected Technical Information Articles on Aircraft Engineering." On his next visit he ordered six volumes of the journal *Electronics*. But on the same days, in another public library, he withdrew works which had been submitted in competition for the Lenin Prize: "Overall Mechanization and Automation of Radio Capacitor Production," and "Collected Articles on Problems of Production Management Improvement," while in yet a third library he studied a public accession file of all recently received literature (with restrictive markings) on radio-electronics plus a number of other scientific and technical publications. Even a fool would realize that in so short a period of time no physicist could possibly even cursorily scan so ambitious an amount of reading material.

One more example of work with overt sources. This one was reported on by the US military magazine *Military Review*. "In the 1964 November parade in Moscow there was the first display of a 40-barrel rocket-launcher. The barrel caliber was anywhere from 110 to 140 mm, with the length approximately two meters. The launcher was

mounted on the chassis of the new Soviet military truck, the 'Ural 375,' which has replaced the 'ZIL 151' and 'ZIL 156' trucks. The 'Ural 375' has a maximum speed of 75 km/h and an unrefueled range of 650 km. The effective firing range of the new launcher is from 12 to 16 km."

Whence this high degree of knowledgeability? From intelligence, of course. Someone, actually at Red Square, had photographed the parade – as did someone else also, at a more remote television set. What follows is simple: the Americans analyze greatly enlarged still photographs of television transmissions which are of interest to them.

Another fact provides a curious basis for tracing the character and thrust of US analytical intelligence activities. Our public press carried a picture of a strategic missile. Although aware that the appearance of the missile might have been altered by retouching, US specialists still undertook to reconstruct its general configuration and certain technical-tactical characteristics. Using a variety of techniques, they copied the photograph and made drawings from it, after which they compared these drawings with available information, performing the necessary mathematical computations and logical operations.

In the view of American writers, the collection of open-literature information constitutes the first essential step in the study of an intelligence-related subject. In his discussion of the matter, for instance, S. Kent writes that no purposeful illegal [clandestine] activities are possible at all without first studying the subject by overt sources. "Clandestine intelligence agents," he writes, "will not know what they should be looking for unless they are able to make extensive use of the data which they themselves or some other intelligence agency has overtly acquired. The establishment of the object, its further elaboration, its reporting – all this is activity within the scope of free and overt intelligence."

Toward the middle sixties, US intelligence, through a careful analysis of complete four-year sets of certain Soviet journals, expressed the belief that our scientists were actively engaged in a study of the effect of shortwave radio emissions on animals and humans. Subsequently, a group of American operatives (a group, not an individual!) was entrusted with the assignment of verifying the validity of this supposition. Without discussing how they endeavored to achieve their purposes, let us merely note that, judging by the actions of these agents, they concentrated their attention primarily on scientific articles, reports, and statements.

It is also known that US military intelligence specially screened the list of all Soviet subscribers to the American journal *Missiles and Rockets* in an effort to determine which Soviet men of science and which research organizations are involved in the area of guided missiles.

And, as we have already noted, American secret services show the keenest possible interest in personnel studies.

Before and during wartime, biographical information is particularly valuable as an aid to predicting the behavior of a given individual of authoratative status in a specific situation, and thus by extension the actions of the organization or forces under his control or command. Here it is important to realize that any individual occupying a position of prominence in any country or in any way standing apart from the mass of people around him is an object of persistent scrutiny by the CIA. Biographical data are drawn from a wide variety of sources, including press as well as classified and other channels. Personnel information is a vital element not merely in military estimates, but - and this is especially significant - in every-day intelligence and counterintelligence operations. Despite the reluctance of American writers to deal extensively with the subject, it is precisely this factor which is decisive.

According to reports leaked to the Western press, toward the middle sixties US intelligence files contained information on more than 10,000 Soviet scientists and specialists alone. It is said that in certain US embassies and missions there are even specially installed electronic computers for the instantaneous retrieval of information on individuals of interest to intelligence authorities. The chief center which receives and systematizes an uninterrupted flow of data of this kind remains, of course, the CIA.

In their effort to gather information on scientists and specialists of the socialist countries and to learn what they may be working on, US intelligence, just as that of the remaining Western nations, calls on a wide bag of tricks. During the first technical exhibit by the United Kingdom in the Soviet Union in 1960, the Intelligence Office (in which, it will be remembered, the British cooperate with the Americans and Canadians) relied heavily on the natural interest of young Soviet specialists in the latest developments in radio electronics. Around the display stands carrying these innovations (and they always drew a large crowd) guide-consultants, specially schooled by intelligence authorities for their role, were on duty. Happily satisfying the curiosity of the visitors, these guides handed out attractively printed brochures and catalogs, taking pains the while to note the areas of professional interest. To such visitors the "guides" would propose a detailed written consultation, promising to send more complete information, to which end they naturally inquired as to the visitor's address, including, of course, that of his place of business. All this in pursuit of a single goal: the compilation of a list of young specialists engaged in the field of electronics and rocketry and the acquisition of the addresses of certain of our restricted institutes and enterprises.

This has already become something of a tradition. The prospectuses available at all US and British technical exhibits in Moscow announce the willingness of one or another firm to supply all interested parties with exhaustive technical data - but with a single proviso: fill out the form, indicate your address, place of business, profession, nature of your work, and the inquiry you wish answered.

We might add that, as a rule, these prospectuses are introduced into the USSR illegally and are circulated, together with the questionnaire, with great circumspection.

In 1969 there was held in Moscow an international exposition under the title "Automation 69" – the first universal exhibit in the Soviet Union of electronic control machines and overall systems for automatic process regulation in industry and agriculture. Participating in the exposition, in addition to the Soviet Union, were twenty-two countries, with a total attendance of 700,000 people. Obviously, something like this had to seem an almost custom-made paradise for intelligence operatives. The "guides" went into tireless operation, handing out brochures, promising anyone and everyone any supplemental technical information, even for items not then actually on display. And again, the same old ploy – the questionnaire, the card, the special form to be filled out; in a word, let the guide and his firm know what the visitor is interested in, what his work is, and where to send the reply. The "questionnaires" and "forms" followed more or less the same format: "last name, first name, patronymic, place of business, occupation, academic degree held, home address, business and home telephone numbers, questions of interest to the visitor, questions concerning which the visitor would like additional information." This, for example, was the text of one British firm's "questionnaire," prepared, incidentally, well in advance. At first sight, nothing unusual... an exposition is, after all, an exposition, and a desire to assist the visitor to expand his intellectual horizons can only be regarded as a noble deed. The point is, however, that this "horizon-expansion" exercise was also the mission (in any event, the intended mission) of imperialist intelligence.

Organizing receptions for Soviet scientists and specialists visiting the exhibit, the foreign firms would also invite to them the diplomatic representatives of other embassies. These diplomats would, as a general rule, be well rehearsed in technical matters and would show themselves to be highly conversant on the principal subject areas of the exhibit – and what electronics and systems automation

means in the modern world is obvious to even the last dullard. So zealous, in fact, were some participants in the "Automation 69" exposition that an appropriate official remonstration was made to the representatives of eight Western European and one American firm.

How Overt Information is Processed

The problems associated with the storage and systematization of the data obtained from the study of the open-literature sources of the socialist countries are so complex and vast that the intelligence agencies of the imperialist states are constantly seeking new organizational approaches to the concentration and coordination of efforts in this area. To this end, in the United States, England, West Germany, and other countries, special establishments have been created and are in operation.

Until quite recently, the primary center in the United States involved in the extraction of information from generally available printed publications from the Soviet Union and other socialist countries was the State Department. Participation in this effort by other government agencies was determined by their special requirements. However, in 1955 a congressional committee on the reorganization of government agencies, after an in-depth study, recommended that the State Department be relieved of this function and that it be transferred to the CIA along with broad powers to call on the assistance of other agencies. The proposal was also put forward to institute at the diplomatic missions of the United States in certain countries the position of scientific attaché, whose job it would be to collect press-reported information and process it for the Central Intelligence Agency. "In connection with the fact," so state the committee's findings, "that the CIA, along with the other intelligence agencies, is failing to fully exploit the opportunities to acquire the valuable military and technical information contained in the scientific and technical reports published in other countries, and has been shifting this burden exclusively to the Department of State, this responsibility should be removed from the Department of State and entrusted to the CIA, with the conferral on that Agency of the right to appoint special attachés capable of conducting this

operation abroad." According to I. Yosten, this recommendation was approved by the congress.

As the first-priority task in this operation the Central Intelligence Agency considers the timely collection of all available printed publications in the countries of interest to it. Various channels are employed for this purpose, including such techniques as the book exchanges carried out by large libraries and involving hundreds of thousands of titles.

The reader will doubtless be interested to learn that the US Embassy in Moscow and the diplomatic missions of other capitalist countries either buy or subscribe to centrally published, local, and departmental newspapers and journals, along with all kinds of literature and handbooks on science and technology, industry and agriculture, transportation and communication. In addition, newspapers, journals, and other open informational sources are also acquired through American tourists, the members of different delegations, students and post-graduates studying in the USSR. There is a special group of US Embassy staffers who quite literally hunt down every book in which there might be even the most oblique information of special interest.

The Americans follow the latest developments in Soviet literature through catalogs, guide books, or publicity folders, acquiring items of interest either by subscription or through the "Kniga-Pochtoy" organization or directly at the bookstores. Oddly enough, they work through the "Kniga-Pochtoy" system mainly to obtain books from regions of the country closed to foreigners, while the principal mass of literature is purchased directly at bookstores or stands.

Everything in the way of literature published in the USSR is grouped or classified by problem area: science and technology, economics, politics, jurisprudence, military science, culture, society and education, medicine, guide books, subscription publications, miscellaneous. Each section is in turn broken down into several subject areas.

As far as permanent "customers" are concerned, the US Embassy has more than enough. It fills orders for the Documentation Section of the Intelligence Directorate of US Air Forces in Europe (Wiesbaden). Soviet city maps are bought up primarily on order from the Special Department of the US Army Map Service. Large shipments of books are sent from the Embassy to the CIA and US congressional libraries and to other organizations, where they undergo processing. Press studies have been entrusted to a special group of US Embassy staff workers in Moscow with a knowledge of Russian. Great importance is attached to the acquisition of books and brochures from republic-level, kray, and oblast' publishing houses. US Embassy officials, and at their behest other Americans as well, generally carry with them literature from the Baltic Republics, White Russia, and the Ukraine (written for the most part in the languages of these republics). In Leningrad their particular effort is to obtain books on shipbuilding, instrument manufacture, and optics; in Baku — on the petrochemical industry; in the cities of the Ukraine — the steel industry, and so on.

Americans display a keen interest in all kinds of cartographic material, carefully amassing data on Soviet cartographic and survey organizations and researching both the appropriate publications of the Soviet Academy of Sciences and every conceivable textbook on geodesy and mapmaking. They are assiduous in their purchases of city guides, tourist route maps (particularly for Eastern and Western Siberia), atlases and highway maps, and all Arctic material. If this weren't enough, they hunt down every book in which they suspect the presence of large-scale charts or layouts of specific Soviet regions (for instance, Civil War books, books on travel through Siberia, Altay, and Central Asia).

According to the *New York Herald Tribune*, the CIA library has a monthly accession list of as many as 200,000 copies of various printed foreign publications, predominantly from the countries of the socialist commonwealth.

Over the years there has also been a steady increase in what the US Embassy in Moscow spends on subscriptions to periodical literature.

Based on *Soyuzpechat'* (Main Administration for the Distribution of Publications) statistics, in 1968 the US Embassy subscribed to 900 Soviet newspaper and magazine titles (of which 83 percent dealt with economics, science, and technology). This was six times more than in 1960. Of the two categories of specialized journals – for individual subscribers and agencies – subscriptions were entered only for those journals which are earmarked for agencies. In addition, the Americans in Moscow subscribed to over 130 titles of newspapers and magazines from other socialist countries.

And so the Central Intelligence Agency has become a gigantic center at which is concentrated and processed every possible kind of open literature obtained in many nations of the world. "All this open literature," Allen Dulles once wrote, "is, as it were, the grain to be threshed in the mill of intelligence." This naturally requires the creation of a powerful processing apparatus equipped with the latest advances of technology.

It has been learned from US publications that in the sixties, CIA branches engaged in the processing of Soviet scientific literature were supplemented by several hundred employees of the Analysis and Investigations Branch of the US State Department. While it is true that even now the State Department is continuing its study of Soviet printed source material, the basic emphasis at that department is directed to social and political problems. (There are reports that until quite recently the Department's investigative branches employed over 100 "Russia specialists" and an additional 30 at regional desks.)

All information of a political, economic, military, and scientific-technical nature – particularly with respect to the Soviet Union – received at the CIA from whatever sources is concentrated in its Information Branch, which is the daily recipient of an average of from 100 to 150 fresh intelligence bulletins. Here this material is systematized, electronically processed, and studied by experts. By far the greater part of the information is obtained through the processing, analysis, and collation of official data drawn from newspapers, journals, reference works, the publications of academies

of sciences and scientific research organizations, dissertations, statistical reports, government decrees, transcriptions of radio and television broadcasts and also of radio-telephone conversations in troop units, geological teams, scientific expeditions, construction sites, and the like. Within only a twenty-four hour period the CIA's so-called "monitor service" receives and records almost six million words in sixty languages.

In addition to the CIA and State Department Intelligence, open-literature sources of the socialist countries are also studied by the intelligence agencies of the Army, Air Force, and Navy, the National Security Agency, the Atomic Energy Commision, the Information Agency, the "Russian Institutes" of research centers and universities, the Institute for Defense Problem Analysis [IDA], the scientific laboratories of the larger firms, and certain private organizations. Some idea of the specific nature of the functions of each of these organizations can be gained through the example of the processing, already mentioned, of the Soviet ICBM photograph. This was made the specific task of a branch of the research laboratories of the Bendix Corporation (Michigan), as most competent in this area. Until quite recently, the Library of Congress had a special Space Technology Branch [ATD], which served the Pentagon as a source of intelligence on Soviet military and space programs. This branch was staffed by 230 experts, most of them emigrés from the USSR, engaged in the translation and processing of Soviet scientific publications.

But even that isn't all. In search of the necessary information which might provide the basis for the development of new means of mass destruction, the United States has set up special offices, so-called "Buck Rogers Offices," which study foreign science-fiction literature. It is known, for example, that in charge at the Pentagon of the analysis of all science-fiction literature published in the USSR is one Albert de Perry. Along with this, the Office follows the more authoritative foreign journals and publications dealing with science and technology.

In recent years there has been an even greater upsurge to intelligence gathering through the scientific analysis of open publications. Annually, on the exploitation of Soviet scientific and technical literature alone, the United States spends more than 100 million dollars. Scores of Soviet journals are translated currently and on a cover-to-cover basis, not to mention an enormous number of isolated works and articles. The following fact is symptomatic: in US military agencies translations of articles openly published in the Soviet Union, dealing, for example, with the Armed Forces and the Academy of Sciences, are frequently, according to Princeton University's Prof. O. Morgenstern, consultant to the Joint Congressional Committee on Atomic Energy, classified "Secret" to avoid divulging the problem area of interest to American authorities. Almost one-quarter of the abstracts published in such publications as *Nuclear Physics Abstracts* and *Chemical Abstracts* reflect the content of articles published in Soviet scientific journals. It is likewise known that all recent translations of Soviet journals are reported in *Technical Translations*, released for agencies of the federal scientific and technical information community.

The same organization puts out a collection entitled *Soviet Bloc Research in Geophysics, Astronomy, and Space*. And, finally, the Library of Congress publishes a monthly list of new accessions in Russian, this being the basic bibliographical publication on Soviet science, particularly with respect to space.

All this involves the expenditure of enormous, almost incalculable funds. It is a fact that the McGraw Hill Publishing Company alone, intimately associated with the CIA, was paid a one-time fee of several million dollars by the US Air Force to organize the collection of open-literature information on Soviet R&D establishments.

The intelligence establishments of the western countries, which cooperate with the US, are also engaged in similar work. In England, for example, the leading organization for the collection and systematization of Soviet open-literature scientific literature is

the Department of Scientific and Industrial Research. As early as 1959 the British press reported on the nature of this Department's activities: "At the present time, a small group of people working in Regent Park is directing one of the most efficient 'intelligence networks' in the West, and they're doing it right out in the open..."

With respect to the actual method used by US intelligence agencies to exploit their data store, general information from open sources is classified and forms the basis of numerous and constantly revised "intelligence encyclopedias," which are compiled in the manner of conventional encyclopedias with groupings by country. The data contained in these publications are used both by those working in the area of foreign policy and military strategy and by those engaged in the analysis of intelligence information.

In the preparation of "biographical" information, the dossier method is also employed. Diplomatic agencies run dossiers on the political figures of foreign states; military agencies – on the top-echelon and senior officers of foreign armies, navies, and air forces, and even on noncommissioned and officer personnel of, for example, submarine crews, unit officers of the standing army, and the like. An interesting point is that a dossier is kept regardless of whether the "subject" is regarded as a potential friend or foe. According to I. Yosten, "There is a card-file in Washington in which entries are made on even relatively little-known political figures and business people of small neutral states – that is, on individuals who do not even remotely suspect that the fact of their existence could possibly be of any interest to the Americans. But even in that small country a situation might develop one fine day requiring fast action, in which event the CIA must have at its disposal exhaustive data on any man who, by virtue of an unexpected turn of events, might find himself in a position of responsibility." These dossiers and card-files contain information on the activities of the subjects in question – their past, their thinking, their habits, their character, their material circumstances, their connections, their published works, the influence they exert on the political life of the country, their probable position in the event of war, and so forth.

The CIA's enormous open-source workload necessarily requires current and advanced methods for the processing, storage, and exploitation of information which naturally becomes rapidly obsolete and worthless. Modern technology alone can make it possible to operate efficiently on this scale.

The "information explosion," that is, the incredible increase in the number of publications observed in recent years, along with rapid advances in computer engineering and the associated more extensive use of automation, has given rise to the emergence of the relatively young discipline of machine translation. For the United States the great importance of the scientific research being conducted in the Soviet Union makes the problem of the translation into English of Russian texts even that much more acute. As acknowledged by American writers, because of the shortage of qualified translators and soaring translation costs it is becoming increasingly difficult to meet the requirements of concerned departments and agencies. This is the reason for the large government allocations for the development of more advanced forms of machine translation.

In a book by S. Pershke published in the United States in 1968 under the title *Machine Translation — Second Development Stage* mention was made of the fact that the US Air Force Foreign Technology Division was translating Russian texts into English at a general rate of about 100,000 words a day.

Data for the early sixties indicate the availability to the CIA of an electronic machine translating texts of average difficulty from Russian to English at speeds of 30,000 words per hour. Some American economists have calculated that the cost of machine translation is about $7 per 1000 Russian words (excluding lead and capital expenditures for research, but including computer amortization costs and keypunch operator salaries). With this cost picture, machine translation is advantageous in their opinion even when part of the work will have to be "manually" repeated. Electronic computers (including those for textual translation) are available to other US intelligence agencies as well.

All the information flowing into the CIA is stored on punchcards (by the middle sixties there were up to 40 million of them). Whenever an employee of that agency has a need to refer to the literature on a given subject, he feeds the "brain" a list of key words (numbering approximately twenty-five) on the area of interest. The machine locates the microfilmed material, rephotographs it in ultraviolet light, and displays the tiny cards by means of a special projector.

From time to time reports find their way to the pages of the American press on the technical equipment base supporting the CIA's modern analytical-reference system. Nevertheless, for all the rapid evolution of computers, translation machines, microfilming, and the other facilities required for this purpose, the CIA, if we are to be guided by the statements of the same authors, is still unable to cope with the rising floodtide of open-literature foreign sources in need of instantaneous processing. It is known that up until quite recently machines were able to account for the translation of only seven percent of the Soviet science and technology publications received in the United States (700 million words a year). Possibly these data are now somewhat obsolete, but they do attest to a new contradiction: between the total scope of the information-collection effort and the realistic technical possibilities for its exploitation.

In conclusion, it should be noted that as they constantly seek to perfect their system for the gathering, storage, and utilization of the overt sources of socialist countries, the directors of US intelligence are at the same time studying the measures being taken by these countries to impede the use of their open literature. Keeping in mind this "counteraction experience," the Americans then devise their own techniques aimed at limiting the other side's opportunities to exploit US overt publications for information of interest. The initiation of this undertaking dates back to the period when the director's chair at CIA was held by General Smith, who one day decided to run a kind of check. He contracted with a group of highly competent specialists from one of the large American universities to have them study the latest open publications, newspaper articles, congressional session minutes, government reports,

monographs, printed speeches, etc., and to determine what kind of an assessment of US capabilities an "enemy" might be able to formulate by analyzing these unclassified sources. All these materials were easily available either free of charge or for a modest sum. The conclusion of these experts whose interests lay neither in understatement nor in exaggeration, was to the effect that the presumable picture open to the "enemy" regarding US military might indicate that "in order to discover certain important defense-related secrets and the general order of battle of the US Armed Forces, an intelligence service need only devote several weeks to the study of the open literature by a specially created competent group."

General Smith's report, based on the findings of these academic specialists, was the subject of high-level government deliberations.

In Summary

The equipping of intelligence services with advanced computer and electronic facilities has today made it possible to rapidly systematize and digest data holdings and to convert them into an effective in-depth analysis base for intelligence forecasting. Under the conditions of the modern world, the intelligence interest of one state with respect to another has become so all-encompassing that it can be satisfied only through the overall exploitation of all information-acquistion capabilities, including, of course, open-literature sources.

The use of overt sources releases clandestine personnel for more difficult and responsible assignments whose execution is possible only on an illegal basis and which thus justify the national risk involved.

Regardless of the quantitative proportions which may exist between the various forms of intelligence activity, it must be most categorically stressed that the use by foreign intelligence of open-literature information sources constitutes a grave danger to any government. No one can fail to see that, in today's world with its

rapid development of scientific and engineering thought, no single advanced nation, without detriment to its own progress, can restrict open sources or can renounce scientific and technical publication, book and journal exchange programs, exhibits and expositions, or other forms of intellectual intercourse. However, it is in our power to complicate for foreign intelligence their legal intelligence activities and to minimize the damage which those activities may inflict on our national interests. This can be achieved primarily through the proper analysis of our own open literature. Much here also depends on our understanding of the operational methods employed by foreign intelligence in their exploitation of overt sources, and on the timely and competent orientation in these problems of those Soviet scientists and specialists who, to one or another degree, deal with material whose publication might at first sight seem innocuous and even necessary in the interests of the development and propagation of scientific knowledge.

Above all, a great deal depends on the sense of responsibility of every person in any way connected with our military-economic potential - a sense of accountability to the nation and to the society for the safeguarding of the information which has been entrusted to him; on our ability to show restraint where there is no reason for excessive candor, where garrulousness in any form is dangerous and simply criminal.

The wartime expression "The talker is a find for the foe" is equally valid in our divided postwar world.

UNCLASSIFIED
Security Classification

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author)
Foreign Technology Division
Air Force Systems Command
U. S. Air Force

2a. REPORT SECURITY CLASSIFICATION
UNCLASSIFIED

2b. GROUP

3. REPORT TITLE

WITHOUT EVER LEAVING HIS OFFICE

4. DESCRIPTIVE NOTES (Type of report and inclusive dates)
Translation

5. AUTHOR(S) (First name, middle initial, last name)

Sergeyev, F.

6. REPORT DATE	7a. TOTAL NO. OF PAGES	7b. NO. OF REFS
November 1970	27	

8a. CONTRACT OR GRANT NO.	9a. ORIGINATOR'S REPORT NUMBER(S)
b. PROJECT NO.	FTD-HT-23-871-70
c.	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)
d.	

10. DISTRIBUTION STATEMENT
Distribution of this document is unlimited. It may be released to the Clearinghouse, Department of Commerce, for sale to the general public.

11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY
	Foreign Technology Division Wright-Patterson AFB, Ohio

13. ABSTRACT

The equipping of intelligence service advanced computer and electronic facilities has today made it possible to rapidly systematize and digest data holdings and to convert them into an effective in-depth analysis base for intelligence forecasting. Under the conditions of the modern world, the intelligence interest of one state with respect to another has become so all-encompassing that it can be satisfied only through the overall exploitation of all information-acquisition capabilities, including, of course, open-literature sources. The use of overt sources releases clandestine personnel for more difficult and responsible assignments whose execution is possible only on an illegal basis and which thus justify the national risk involved. Regardless of the quantitative proportions which may exist between the various forms of intelligence activity, it must be most categorically stressed that the use by foreign intelligence of open-literature information sources constitutes a grave danger to any government. No one can fail to see that, in today's world with its rapid development of scientific and engineering thought, no single advanced nation, without detriment to its own progress, can restrict open sources or can renounce scientific and technical publication, book and journal exchange programs, exhibits and expositions, or other forms of intellectual intercourse.

DD FORM 1 NOV 65 1473

UNCLASSIFIED
Security Classification

UNCLASSIFIED
Security Classification

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Intelligence Intelligence System Military Intelligence						

UNCLASSIFIED
Security Classification